CATALOGUE OF THE SPECIES OF CERION, WITH DESCRIPTIONS OF NEW FORMS.

BY HENRY A. PILSBRY AND E. G. VANATTA.

The genus *Cerion*, or as it is commonly known, *Strophia*, is one of the most characteristic forms of West Indian land-molluscan life. With two exceptions the species are all insular; *C. incanum* and *C. Antonii* only, the former from South Florida Keys, the latter reported to be from Guiana, are continental. The Greater Antilles—Cuba, Hayti and Porto Rico, with the Virgin Is. and the entire group of the Bahamas, are inhabited by numerous species, with a multitude of local races. South of the larger islands named, if we include with Cuba the faunally dependent Cayman group and Isle of Pines, but one single species is found, *C. uva* of Curaçoa, singularly isolated in characters as well as geographically. Jamaica is without a species; and the genus also fails in the Caribbean chain.

In the main, each species is confined to some single island, or to a series of adjacent keys or islets; but there are numerous exceptions, where forms unquestionably conspecific are found on several islands separated by considerable distances.

The species are subject to a remarkable range of individual and local variation. Thus, many species vary from strongly and conspicuously ribbed to entirely ribless and smooth. In fact this is a common variation, incontestably established by the series we have examined of *Cerion dimidiatum*, *C. columna*, *C. regina*, *C. uva*, *C. maritimum*, *C. Sagraianum* and many other species. Color is equally variable, pure white species varying to heavily brown-mottled, and this not in one, but in many of the species. Absolute size of adults is almost as mutable as in *Cypræa;* and occasional individuals are abnormally shortened by the premature assumption of the features of maturity, giving them a stunted appearance.

All of these considerations render the study of the species one of unusual difficulty; and the older authors, unacquainted with the protean nature of the species, as with the usually restricted range of each, often failed to properly discriminate them. Thus, the several volumes of Pfeiffer's *Monographia Heliceorum Viventium* are un-

reliable in dealing with many species, especially in respect to geographic distribution.

An American writer on natural history, Mr. C. J. Maynard, some years ago begun the study of this genus, and to his earliest publication on the subject we owe the first clear statement of some facts of prime importance: that the Cerions are excessively plastic, and locally modified into a considerable number of species and subspecies; that the range of some of these forms is excessively limited; and that former authors had failed to discriminate many really distinct species, "lumping" them under a few old names; and finally, that the aperture-armature, or "teeth" of the Cerions are variously arranged, and furnish ground for the division of the genus into several subgenera. Mr. Maynard, moreover, has discovered and described a large number of most interesting species and varieties, especially the Cayman Island group; so that his work on this genus has been an important one. However, in our opinion he has unduly multiplied species and subspecies, basing them on characters we hold to be too slight and inconstant, and his work is marred by inaccuracies of all kinds "too numerous to mention."

Our object in preparing the present list has been primarily to place before students a moderate estimate of the species of the group, specific values being held neither in extremely narrow nor very wide limits, but practically in conformity with the views represented by the leading English and American conchological authors of today.

We have taken this occasion to place on record the results of a careful study of a very large collection of shells of the genus, a collection including numbers of shells which have been identified by Bland, Swift, Pfeiffer, Dohrn, Gruner and others, as well as accessions, considerable in the mass, from Messrs. H. D. Van Nostrand, S. Raymond Roberts, W. H. Dall, C. J. Maynard and others.

The soft anatomy of the Cerions is still but little known. Dr. Leidy, the Cuvier of American Zoology, has given figures of the the anatomy of *C. incanum* Binn.[1] W. G. Binney has figured jaw and teeth of the same species[2] and C. J. Maynard has more recently published figures of the jaws and soft anatomy of a species from the Cayman Is.[3] Leidy's figure unfortunately does not show the various systems of organs separately, and it is difficult to interpret

[1] Terrestrial Mollusks I, pl. xv, figs. ii-iv.
[2] Terr. Moll. V.
[3] Contributions to Science, Vol. I.

the confused masses and ducts of the generative and digestive tracts, shown crowded together. It appears, however, that the long spermatheca duct bears a diverticulum, and the vas deferens is of unusual length. Maynard does not seem to have been fortunate in his preparations, and his figures afford no data of assistance to us.

The only species seen by us in the flesh is *Cerion Yumaense* P. & V.;[4] the specimens examined being part of the type lot received from Mr. Henry Prime and corresponding to fig. 3 of pl. XI.

The penis (*p*) is a moderately stout sack from the termination of which the short retractor springs. Near the base of the penis the vas deferens (*v. d.*) enters; and this is of extraordinary length as shown in the figure. The spermatheca (*sp.*) has a long duct, without branch or diverticulum; and there is a large talon (*t*). Ovotestis not observed.

C. Yumaense P. & V.

A transverse section of penis-sack some distance above entrance of vas deferens shows a cavity with bipartite or dumb-bell shaped section, filled with a granular yellowish substance.

It will be seen that this differs from Leidy's figure in lacking the diverticulum of the spermatheca duct. It agrees with it in showing *an excessively long free portion of the vas deferens, inserted abnormally low on the penis;* and these will doubtless prove to be generic characters widely sundering *Cerion* from all other genera of which the genitalia are now known.

Subdivision of the Genus Cerion.

Four groups of subgeneric value may be distinguished by conchological characters. *Strophiops* only is known anatomically.

I. Axial and parietal folds wanting, Eostrophia.

II. Axial fold in angle at root of columella; no parietal fold, Cerion s. str.

III. Axial and parietal folds present, the latter near middle of parietal wall, single and short, not over one-third of a whorl long, Strophiops.

IV. Axial and parietal folds present, the latter very long and doubled, or short and interrupted, with an accessory denticle; rarely obsolete, Diacerion.

[4] The dissections and drawing are by Mr. Vanatta.

The first and second of these groups consist, at present, of one species each. *Strophiops* is by far the most numerous in species. We are unable to make any subgeneric division into long- and short-toothed forms; the various species present a perfectly graduated series. *Maynardia* Dall and *Longidens* Maynard are, therefore, in our opinion, merely subordinate divisions of *Strophiops*.

Genus CERION (Bolton, 1799.) Mörch, 1850.

Mörch, Catal. Yoldi, p. 63. Dall. Bull. M. C. Z. XXV, No. 9, p. 120
Strophia Albers, 1850, not of Meigen, 1832.

Subgenus EOSTROPHIA Dall, 1890.

1. Cerion anodonta Dall.*[5] Trans. Wagner Free Inst. Sci., III, p. 13, pl. 1, figs. 8c, 8d.

Miocene: Silex Beds, Ballast Point and Old Tampa Bay, West Florida.

1a. Cerion anodonta floridanum Dall.* *L. c.*, fig. 6.

Miocene: Ballast Point.

Subgenus CERION *s. str.*

Distribution, Curaçoa. This is the most distinct of the subordinate groups of the genus. The teeth of the inner whorls are frequently absent.

2. Cerion uva Linné.* Syst. Nat. (10), p. 765. Fér., Hist., pl. 153, f. 11–14.

Island of Curaçoa! The locality "Guadeloupe" is erroneous.

2a. Cerion uva desculptum P. & V.* Pl. XI, fig. 1.

Curaçoa.

Subgenus STROPHIOPS Dall, 1894.

Bull. Mus. Comp. Zool. Vol. XXV, p. 121 (October, 1894).
+*Maynardia* Dall, *l. c.* (type *S. neglecta* Mayn.).
+*Seniculus* Maynard, Contrib. to Sci., III, p. 17 (type *S. mumia* Brug.).
+*Umbonis* Maynard, Contrib to Sci., III, p. 28 (type *S. scalarina* Gundl.).
+*Pinguitia* Maynard, Contrib to Sci., III, p. 30 (type *S. "dimidiatia"* Pfr.).
+*Longidens* Maynard. Contrib. to Sci., III, p. 39 (type *S. pannosa* Mayn.).
+*Multostrophia* Maynard, Contrib. to Sci., II, p. 177 (type *S. eximea* Mayn.).

Group of *C. pannosum* (Longidens Maynard).

Distribution, Cayman Islands. Maynard correctly separates this group of species from typical *Strophiops*.

3. Cerion nanum Maynard.* Contr. to Sci., i, p. 27.

Little Cayman.

[5]Species and varieties marked with an asterisk (*) are represented in the collection of the Academy of Natural Sciences of Philadelphia.

4. Cerion copium Maynard.* Contr. to Sci., i, p. 22.

Cayman Brac.

4a. Cerion copium parvum Maynard.* Contr. to Sci., i, p. 24.

Cayman Brac.

5. Cerion glaber Maynard.* Contr. to Sci., i, p. 25.

Cayman Brac.

5a. Cerion glaber perplexum Maynard.* Contr. to Sci., i, p. 71.

Cayman Brac.

6. Cerion levigatum Maynard.* Contr. to Sci., i, p. 12.

Little Cayman.

S. festiva Mayn.* *t. c.*, p. 17, is a more variegated form.

6a. Cerion levigatum acutum Maynard.* Contr. to Sci., i, p. 15.

S. nitela Mayn.,* *t. c.*, p. 73.
S. picta Mayn.,* *t. c.*, p. 18.

These seem to be very closely allied, differing from *acutum* merely in size and degree of mottling.

Little Cayman.

7. Cerion pannosum Maynard.* Contr. to Sci., i, p. 10.

S. fusca Mayn.* *t. c.*, p. 77. Seems to be the same thing differing only in color.
S. intermedia Mayn.* *t. c.*, p. 13. A smaller form.

Little Cayman.

8. Cerion lineotum Maynard.* Contr. to Sci., i, p. 20.

Little Cayman.

Group of *C. maritimum*.

9. Cerion dimidiatum Pfr. Zeitschr. f. Mal., 1847, p. 16.

P. proteus Gundlach mss., Pfr., Malak. Bl., VII, 1860, p. 19; Novit. Conch. t. 66, f. 13–22.

Gibara, Cuba.

An altogether ribless form occurs. The species varies toward the following.

10. Cerion incrassatum Sowb.* C. Icon., XX, pl. 1, f. 6.

Cuba, Gibara.

10a. Cerion incrassatum microdon P. & V.* Pl. XI, fig. 5.

Cuba.

11. Cerion multicostum Küster.* Conchyl. Cab., p. 77, t. 11, f. 6, 7.

Punta Maisi, Cuba.

12. Cerion iostomum Pfr.* Malak. Bl., 1854, p. 204.

Southern Cuba.

12a. Cerion iostomum Arangoi P. & V.* Pl. XI, fig. 12.

Cienfuegos, Cuba.

13. Cerion Sagraianum Pfr.* Zeitschr. f. Malak., 1847, p. 15.

S. marmorata Maynard, Contrib. to Sci., III, p. 12 (not of Pfr.!).
S marmorata polita Maynard, Contrib. to Sci., III, p. 14.
S. obscura Maynard,* Contrib. to Sci., III, p. 21.

Cuba, Cayo Galindo, Cayo Piedra del Norte, Cardenas.

There are two forms of *C. Sagraianum*, one smooth (typical), the other with fine riblets; but the distinction does not seem to be of subspecific value, being too variable in the series before us. The cone of the spire is always minutely sculptured. The intergradation of *S. obscura* Mayn. is established by specimens before us.

14. Cerion maritimum Pfr.* Archiv f. Naturg., 1839, I, p. 353; Conchyl. Cab., t. 9, f. 10, 11.

14a. Cerion maritimum sublævigatum P. & V.* Proc. A. N. S., May 4, 1895, p. 209; Conchyl. Cab., t. 9, f. 12, 13.

Matanzas, Cuba.

15. Cerion incanum Binn.* Terr. Moll., II, p. 318 (1851).

P. detrita Shutt., mss.

Florida Keys; Eastern Cuba.

16. Cerion hyperlissum P. & V.* Pl. XI, fig. 10.

Cuba.

Group of *C. regina*.

17. Cerion Weinlandi 'Kurr' Martens.* Malak. Bl., VI, 1859, p. 207, Novit. Conch., t. 84, f. 1, 2.

Crooked Id., Bahamas.

18. Cerion nudum Maynard.* Contr. to Sci., I, p. 29.

Long Island. Near to *C. Weinlandi*, but smaller.

19. Cerion incanoides P. & V.* Proc. A. N. S., May 4, 1895, p. 209. Pl. XI, fig. 15.

Turks Island.

20. Cerion regina P. & V.* Proc. A. N. S., 1895, May 4, 208. Pl. XI, figs. 23, 24.

Turks Island.

20a. Cerion regina comes P. & V.* Proc. A. N. S., 1895, May 4, 208.

Turks Island.

20b. Cerion regina eucosmium P. & V.* Proc. A. N. S., 1895, May 4, p. 208. Pl. XI, fig. 21.

Turks Island.

20c. Cerion regina percostatum P. & V.* Proc. A. N. S., 1895, May 4, p. 208. Pl. XI, fig. 22.

Turks Island.

20d. Cerion regina Swiftii P. & V.* Proc. A. N. S., 1895, May 4, p. 208.

Turks Island.

20e. Cerion regina brevispirum P. & V.* Proc. A. N. S., 1895, May 4, p. 209. Pl. XI, fig. 25.

Turks Island.

21. Cerion regium Benson.* Ann. and Mag. Nat. Hist. 2d. Ser., IV, p. 125; Conchyl. Cab., t. 17, f. 13, 14.

Pupa decumana of authors, not Fér.

22. Cerion columna P. & V.* Proc. A. N. S., 1895, May 4, p. 207. Pl. XI, fig. 17.

Inagua, Bahamas.

22a. Cerion columna validum P. & V.* Proc. Acad. Nat. Sci. Phila., 1895, p. 207. Pl. PI, fig. 18.

Inagua.

23. Cerion calcareum Pfr. Zeitschr. f. Malak., 1847, p. 83; Conchyl. Cab., *Pupa*, pl. 19, f. 4, 5.

Habitat unknown. Probably will be found in the Inagua group.

24. Cerion sarcostomum Pils. & Van.* Pl. XI, fig. 16.

Little Inagua.

25. Cerion infandum 'Shutt.' Poey.* Memor., II, p. 29–60; Malak. Bl., 1854, t. 3, f. 4, 5.

Punta Gorda en Matanzas, Cuba.

26. Cerion mumia Brug.* Encycl. Meth., I, p. 348, N. 87, Fér. Hist., t. 153, f. 5, 6.

S. fastigata Maynard, Contrib. to Sci., 1896, Vol. III, p. 6, 7.
S. eurystoma Maynard, Contrib. to Sci., 1896, Vol. III, p. 7–9.

Cuba.

26a. Cerion mumia chrysalis Fér.* Hist., t. 153, f. 1–4.

S. scripta Maynard, Contrib. to Sci., iii, p. 34.
S. scripta obliterata Mayn., Contrib. to Sci., iii, p. 5.
S. media Mayn., Contrib. to Sci., iii, p. 18.

Differs from *mumia* only in the insufficient character of being mottled in zig-zag pattern. The various forms described by Maynard are well represented in our series, with intermediate forms also. They have no racial characters worth naming.

26b. **Cerion mumia magister** P. & V.* Pl. XI, fig. 4.

Larger, stouter, more cylindrical, closely mottled and variegated; aperture large, with *the lip broadly flaring*, reflexed.

Matanzas and other localities in eastern Cuba. This is probably *S. mumia* Mayn., Contrib. to Sci., I, p. 190; not of Bruguière.

27. **Cerion mumiola** Pfr.* Archiv f. Naturg., 1839, I, p. 353; Malak. Bl., 1854, t. 3, f. 7, 8.

Matanzas; Bahia Honda, Cuba.

27a. **Cerion mumiola major** Pfr.* Malak. Bl., 1854, t. 3, f. 6.

Cuba.

28. **Cerion sculptum** Poey. Mémorias, II, p. 30, pl. 2, f. 22.

Cuba.

Group of *C. scalarinum*.

This is one of the most peculiar groups of the genus, unique in the sculpture of fine spiral lines crossed by very prominent ribs. Maynard proposes for it the subgeneric name *Umbonis*, but we would hardly accord the group so high a rank.

29. **Cerion scalarinum** 'Gundlach' Pfr. Novit. Conch., p. 367, pl. 84, f. 16, 17.

Gibara, Cuba.

30. **Cerion Johnsoni** Pils. & Van.* Proc. A. N. S., 1895, May 4, p. 207. Pl. XI, fig. 30.

S. faxoni Maynard, Contrib. to Sci., iii, p. 32.

Cuba.

31. **Cerion felis** P. & V.* Proc. A. N. S., 1895, May 4, p. 206. Pl. XI, fig. 29.

Cat Island, Bahamas.

Group of *C. glans*.

32. **Cerion lentiginosum** Mayn.* Contr. Sci., 1889, Vol. 1, p. 75, t. 7, f. 18.

Rum Key, Bahamas.

There is also a pure white form.

33. **Cerion album** Maynard.* Contr. Sci., 1889, Vol. 1, p. 74, t. 7, f. 17.

Rum Key. A closely allied form with liver-brown lip occurs on Eleuthera, but our specimens are only "crab shells," not suitable for exact comparisons.

33a. **Cerion album Brownei** Maynard.* Contr. to Sci., I, p. 196.

Rum Key.

34. **Cerion Abacoense** P. & V.* Proc. A. N. S., 1895, May 4, p. 209. Pl. XI, fig. 11.

Abaco, Bahamas.

34a. Cerion Abacoense Bendalli Pils. & Van.* Pl. XI, fig. 13.

Abaco.

35. Cerion Ritchiei Maynard.* Contr. Sci., 1894, Vol. 2, p. 135, f. 41 a. b.

Highburn Key.

35a. Cerion Ritchiei eburneum Maynard.* Contr. to Sci., 1894, Vol. 2, p. 144, f. 45 a. b. Costæ slightly closer.

U Key, Exuma group.

35b. Cerion Ritchiei elongatum Mayn. T. c. p. 148.

Same locality as preceding, with which it is probably identical.

35c. Cerion Ritchiei Grayi Maynard.* Contr. Sci., 1894. Vol. 2, p. 138, f. 42 a. b.

S. Grayi gigantea Mayn., *t. c.*, p. 141, f. 44 a., *Grayi pumilia* Mayn. *t. c.*, p. 143, f. 44 b.

Highburn Key, Bahamas.

35d. Cerion Ritchiei Vannostrandi P. & V.*

Similar to *C. Grayi giganteum* Mayn., but smooth and snow-white. Aperture small, built forward, its margins not reflexed. Alt. 40, diam. 16 mm.

36. Cerion Maynardi P. & V.* Proc. A. N. S., 1895, May 4, p. 210. Pl. XI, fig. 31.

Abaco, Bahamas.

37. Cerion griseum Maynard.* Contr. to Sci., 1894, Vol. 2, p. 159, f. 51.

S. glans Mayn.* *t. c.*, p. 15, f. 50. Fresh Creek, Andros.
S. bimarginata Mayn.* *t. c.*, p. 164, f. 53. Green Key.
S. bimarginata cera Mayn.* *t. c.*, p. 168, f. 54. Green Key.
S. Pilsbryi Mayn.* *t. c.*, p. 170, f. 53. Goat Key.
S. Pilsbryi evolva Mayn.* *t. c.*, p. 173, f. 57. Goat Key.
S. crassicostata Mayn.* mss. Andros.

Type from about one mile N. of Calabash Bay, Andros.

37a. Cerion griseum regulum Mayn.* Contr. to Sci., 1894, ii, p. 161, f. 52.

Fresh Creek, Andros.

37b. Cerion griseum restrictum Mayn.* Contr. to Sci., 1894, Vol. 2, p. 175, f. 58.

Goat Key.

38. Cerion glans Kuster.* Conchyl. Cab., p. 74. t. 11, f. 1, 2.

? *Pupa tumidula* Desh. in Fer. Hist., pl. 153, f. 8.
S. Curtissii Mayn.* Contrib. to Sci., 1894, Vol. 2. p. 167, f. 33. Waterloo, Nassau, N. P.
S. Curtissii nivea Mayn.* *t. c.*, p. 112, f. 34 a, Waterloo, Nassau, N. P.
S. cinerea Mayn.* and varieties *robusta*, *tracta* and *mutata*, *t. c.*, p. 119, f. 35–37. N. P.
S. neglecta and *var. agava* Mayn.* *t. c.*, p. 150, f. 47. N. P.
S. Carlotta Mayn.* *t. c.*, p. 156, f. 49. Fort Charlotte, N. P.
S. albea Mayn.* *t. c.*, p. 128, f. 28. Spruce Key.
S. Coryi Mayn.* *t. c.*, p. 129, f. 39. N. P.

Nassau, New Providence, may be considered type locality for *C. glans*.

38a. Cerion glans Thorndikei Maynard.* Contr. to Sci., 1894, Vol. 2, p. 116, f. 34, b, c, d.

Waterloo, Nassau, N. P.

This variety, like the next is not trenchantly defined.

38b. Cerion glans varium Bonnet.* Rev. et Mag. Zool., XVI, 1864, p. 71, t. 6.

P. zebra Weinland, Sowb., Conch. Icon, pl. 2, f. 12 a, b. (1875).

New Providence.

Under this head may be grouped the mottled and maculated forms with comparatively delicate, narrow riblets. Intergradation with the maculated forms with slightly stronger ribs, such as "cinerea mutata," "Curtisii," "cinerea tracta," etc., of Maynard, may be expected. Gods and men may well stand aghast at the splitting of *C. glans* recorded above.

C. griseum is doubtfully distinct from *glans*. We leave it separate, because in the average, the two are distinguishable, and they inhabit different islands.

39. Cerion martinianum Kuster.* Conchyl. Cab., p. 75, t. 11, f. 3, 4.

Habitat———?

40. Cerion Blandi Pils. & Van.* Pl. XI, fig. 7.

Turks Island.

Group of *C. Agassizii*.

41. Cerion Agassizii Dall.* Bul. Mus. Comp. Zool., 1894, Vol. XXV, p. 120.

Nassau Ridge, New Providence, fossil in the calcareous sand-rock.

42. Cerion Eleutheræ P. & V.* Pl. XI, figs. 19, 20.

Eleuthera.

43. Cerion gubernatorium Crosse.* Journ. Conch., 1869, p. 186; Journ. Conch., 1870, t. 2, f. 4, lower figure.

New Providence, Bahamas.

Group of *C. crassilabre*.

44. Cerion rude Pfr.* Malak. Bl., II, 1855, p. 102, t. 5, f. 1, 2.

St. Croix. A quaternary fossil.

45. Cerion Yumaense P. & V.* Proc. A. N. S., 1895, May 4, p. 210.

S. ferruginea Maynard, Contrib. to Sci., 1896, Vol. III, p. 19–21.

Yuma River, Hayti.

46. Cerion crassilabre Shuttlew.* Sowb., Conch. Icon., 20, t. 2, f. 14.

Porto Rico, Virgin Is.

The locality given by Sowerby, "India" is a mistake. Porto Rico may be considered the type locality, for here large specimens

such as that figured by Sowerby occur. They are either maculated or unicolored. On Anagada a short, egg-shaped race is found. On Necker Island the shells are pure white, but white ones also occur at Ponce and Puna, Porto Rico.

46a. Cerion crassilabre Sallei P. & V.* Pl. XI, fig. 6.

Small and *cylindrical;* creamy, maculated on the terminal cone. Alt. 19, diam. 7·5 mill. San Domingo (Sallé).

47. Cerion Antonii Küster. Conchyl. Cab., *Pupa*, p. 92, pl. 10, f. 7, 8.

Berbice (British Guiana).

This species is unknown to us.

Group of *C. cyclostomum.*

48. Cerion cyclostomum Kuster.* Conch. Cab., II, p. 6, t. 1, f. 5, 6.

? *Pupa Kusteri* Pfr., Proc. Zool. Soc., 1852, p. 69.

Cuba.

49. Cerion pinerium Dall.* Proc. U. S. Nat. Mus. 1895, p. 6.

Isle of Pines.

50. Cerion tenuilabre Gundl.* Malak. Bl., XVIII, 1870, p. 91.

Barigua-en Baracoa, Cuba.

50a. Cerion tenuilabre pygmæum Pils. & Van.* Pl. XI, fig. 9.

Gibara, Cuba.

51. Cerion microstomum Pfr.* Malak. Bl., 1854, p. 207, t. 3, f. 15, 16.

Punta Jiacos, Cayo Paredon Grande, Cuba.

52. Cerion Cumingianum Pfr.* Proc. Zool. Soc., 1852, p. 68.

Hab.——?

53. Cerion Gundlachi Pfr.* Zeitschr. f. Malak., 1852, p. 175, t. 1, f. 39–42.

Punta de San Juan, Cuba.

Group of *C. Martensi.*

54. Cerion Milleri Pfr.* Malak. Bl. XIV, 1867, p. 129; Novit. Conch., t. 84, f. 6–13.

Duck Key, Exuma group.

55. Cerion Gruneri Pfr.* Zeitschr. f. Malak., 1847, p. 15.

Sagua de la Grande, Cuba.

56. Cerion venustum Poey. Memorias, II, p. 30.

Cuba. This species is unknown to us, and perhaps identical with *C. Gruneri.*

57. Cerion Martensi Weinl.* Malak. Bl., IX, 1862, p. 164; Novit. Conch., t. 84, f. 3–5.

Crooked Island, Bahamas.

58. Cerion eximeum Mayn.* Contr. to Sci., 1894, Vol. 2, p. 177, f. 59.

Cat Island. We have a small form; alt. 14½–18 mm. from San Salvador.

58a. Cerion eximeum agrestinum Mayn.* Contr. to Sci., 1894, Vol. 2, p. 179, f. 60.

New Providence. A pure white specimen was collected by Mr. W. Bendall, and kindly presented to the Academy, with others varying from sparsely to heavily marked. The claim of this variety to distinction rests solely on its locality. The shells of *eximeum* and *agrestinum* are often indistinguishable.

59. Cerion multistriatum Pils. & Van.* Pl. XI, fig. 8.

Crooked Island.

Group of *C. vulneratum.*

60. Cerion inflatum Mayn. Contr. to Sci., I, p. 126.

Galena Point, Auklin Is.

61. Cerion marmoratum Pfr.* Zeitschr. f. Mal., 1847, p. 83; Conch. Cat., t. 19, f. 10–12.

Cat Island, Bahamas (according to Bland.).

62. Cerion vulneratum Küster.* Conch. Cat., p. 161, t. 19, f. 16–18.

Gibara, Cuba.

Subgenus DIACERION Dall, 1894.

Bull. Mus. Comp. Zool. 1894, Vol. XXV, p. 122.

Group of *C. striatellum* (*Paracerion* Pils. & Van., 1895.)

See Proc. Acad. Nat. Sci. Phila., 1895, p. 206.

Distribution, Cuba. Maynard's name *Tridentistrophia* (Contrib. to Sci., III, p. 9, 1896) is a synonym. The group has much affinity with *Diacerion*, but the parietal folds are short.

63. Cerion tridentatum P. & V.* Proc. A. N. S., 1895, May 4, p. 206. Pl. XI, fig 27.

Cuba.

64. Cerion striatellum Fer.* Icon. Regne Animal, Moll., 1829–1843, p. 60, t. 6, f. 12.

Cabo Cruz, Cuba.

65. Cerion basistriatum P. & V.* Proc. A. N. S., May 4, 1895, p. 206.

Cabo Cruz, Cuba.

Group of *C. rubicundum* (*Diacerion* Dall).

Distribution, Inagua. The species or forms of this group form an excessively complex problem, which is far from being satisfactorily

solved by the material yet studied. *C. Bryanti, rubicundum* and *Dalli* appear to be stages in a continuous or almost continuous series of variations. *C. Dalli* is the largest form, with the peculiar armature of the aperture most highly developed. *C. rubicundum* is more slender, often much smaller, with the armature less developed in many specimens. *C. Bryanti* is decidedly smaller, thinner, with the teeth reduced to a mere vestige in the typical form, although specimens occur which seem to establish its intergradation with *rubicundum* in tooth arrangement. *C. Bryanti* may be regarded as a stunted race of *Diacerion* which has re-assumed the characters of the group *Maynardia.*

C. Dalli varies from the fine-ribbed typical form with as many as 63 riblets on the last whorl, to a rather coarsely sculptured surface, 27 ribs on last whorl (40 specimens examined, including one of type lot).

C. rubicundum varies in the same way, Maynard's *S. ianthina* and *S. pallida* being coarse forms. Some examples before me are more elongated and coarse-ribbed than Maynard's types of *ianthina*, but the integradation effaces specific lines for these forms.

There is likewise a very stout variety of *C. Bryanti*, and as already mentioned, the specimens vary from almost toothless to the typical *Maynardia* dentition, and onward toward the condition of *C. rubicundum.* We are indebted to Mr. H. D. Van Nostrand for a large series of these species and varieties.

66. **Cerion Bryanti** Pfr.* Malak. Bl. XIV, 1867, p. 130; Novit. Conch., t. 84, f. 14, 15.

Inagua.

67. **Cerion rubicundum** Menke.* Catal. Malsb., p. 8; Conchyl. Cab., t. 9, f. 8, 9.

S. ianthina Mayn.* Contr. to Sci., 1889, Vol. 1, p. 69, t. 2, f. 13.
S. pallida Mayn.* Contr. to Sci., 1889, Vol. I, p. 70, t. 2, f. 14.

Great Inagua.

68. **Cerion Dalli** Mayn.* Contr. to Sci., Vol. 1, 1889, p. 128, t. 13, f. 23.

Great Inagua.

69. **Cerion cylindricum** Mayn. Contr. to Sci., 1896, p. 34–36, pl. 7, figs. 3, 4.

Great Inagua. We have not seen this form and know nothing of its status.

70. **Cerion duplodon** P. & V.* Pl. XI, fig. 26.

Bahamas.

UNDESCRIBED OR UNRECOGNIZED SPECIES.

S. orbicularis Maynard. Contr. to Sci., I, pl. 16, f. 6a, b. Undescribed; no locality assigned.

S. viola Maynard. Contr. to Sci., I, pl. 16, f. 5a, b. Undescribed; no locality assigned.

Pupa capillaris Beck. Index Molluscorum, p. 82. Undescribed. "I. Antill."

Pupa elegans Beck. Index Molluscorum, p. 82. Undescribed. "I. Antill."

Pupa conus Beck. Index Molluscorum, p. 82. Undescribed. "I. Antill."

Pupa strobilus Beck. Index Molluscorum, p. 82. Undescribed. "I. St. Domingo."

Helix (*Cochlodonta*) *decumanus* Fér., Prodr., p. 59 (undescribed) =*Pupa decumana* Gray, Ann. of Philos., N. ser., 1825, IX, p. 413, referring to Lister, pl. 588, f. 47, is unrecognizable with any reasonable degree of certainty, but *may* be *Pupa multicosta* Küster.

Turbo alvearia Dillwyn, Descript. Catal., II, p. 862,=*Bulimus fusus* Brug., Encycl. Méth., I, p. 348,=Lister, pl. 588, f. 49, is an unrecognizable form, similar to *Gibbus palanga.*

DESCRIPTIONS OF NEW AND LITTLE-KNOWN SPECIES AND VARIETIES.[6]

Cerion uva desculptum. Pl. XI, fig. 1.

Shell similar to *C. uva,* but differs in lacking the strong, regular ribs characteristic of that species, or in having them very few, weak and irregular.

Alt. 22, diam. 9; apert. alt. 7½, width 6½ mm.

Alt. 19, diam. 9; apert. alt. 7, width 6 mm.

Curaçoa.

A sectionized specimen shows no internal sets of laminæ, but these are frequently wanting in specimens of the typical *C. uva.* Of the latter a good many figures have been published.

Cerion incrassatum microdon Pilsbry & Vanatta. Pl. XI, fig. 5.

Shell varying from cylindric to stout oval, strong and solid; whitish with some inconspicuous gray flecks. Whorls 8½ to 9½, the first one smooth, next finely and regularly costellate, following whorls

[6] See also Proc. Acad. Nat. Sci., Phila., 1895, p. 206. Separate copies issued May, 4, 1895.

with coarser riblets becoming regular, curved, moderately coarse ribs on the cylindrical portion, on base of last whorl obsolete or subobsolete. Latter 3 to 4 whorls of about equal diameter, those above forming rather a long cone. Aperture rounded, truncate above, white within. Peristome white, narrowly expanded and reflexed, obtuse; parietal callus very thin or moderate. Axial fold inconspicuous from in front; parietal tooth extremely small, short.

Alt. 21½, diam. 10½; alt. of aperture 8½ mm.

Alt. 19½, diam. 9½; alt. of aperture 8 mm.

Alt. 18½, diam. 10; alt. of aperture 7 mm.

Cuba.

While this species is very much smaller than *C. incrassatum*, and has the parietal tooth extremely small or almost obsolete, still in figure and sculpture it resembles the larger shell, and may be considered a variety of it until further information is received.

C. incrassatum, like the very closely allied *C. dimidiatum*, has a smooth form which intergrades with the stoutly ribbed typical shells. The earlier whorls have the minute sculpture as in the type form, but to the unaided eye the surface appears smooth.

Cerion iostomum Pfeiffer. Pl. XI, fig. 14.

This species has not been figured. It was described from the south coast of Cuba living among Prickly Pears. Subsequently it was reported from Turk's Island and Great Inagua (see Bland, Ann. Lyc. Nat. Hist., N. Y., XI, p. 85), but having examined specimens from these localities, so labelled by Bland, we find them to be totally distinct species, having little save the purplish-brown color of the mouth, in common with the true *Pupa iostoma* of Pfeiffer's first description.

The specimen shown in our figure answers to the description of Pfeiffer in all respects save that the median whorls are only obsoletely ribbed, hardly "*distanter plicato-costata*"—more like the "*var. β.*" The post-nepionic whorls of the cone are "*conferte costulatum;*" the cone itself "*corneo-marmoratum*", suture conspicuously "*exserto-marginata,*" and the corrugation of last whorl and color of aperture ("*intus violacea*") are likewise in agreement. The specimen figured is 2 mm. shorter than Pfeiffer's. Alt. 30, diam. 12; alt. of aperture 12 mm.

Pfeiffer's type measured, alt. 32, diam. 12; alt. of aperture 13 mm.

Cerion iostomum Arangoi Pilsbry & Vanatta. Pl. XI, fig. 12.

Shell similar to the type in form, but smaller. Latter *two* whorls only of equal diameter, those above forming a rather long cone. Whorls 8½ to 9. Surface *closely and regularly ribbed* throughout (except the smooth nepionic whorls), the ribs mainly white, interstices purplish-brown, mottled with white. Sutures without noticeably exserted margination. Aperture deep, rich purple within.

Alt. 23½, diam. 10⅔; alt. of aperture 9 mm.

Alt. 18⅔, diam. 9; alt. of aperture 8 mm.

Alt. 24, diam. 10⅔; alt. of aperture 9⅔ mm.

Cienfuegos, Cuba (R. Arango).

Strikingly different from *iostomum* at first sight, but we believe it to be closely allied and probably a subspecies thereof.

Cerion hyperlissum Pilsbry & Vanatta. Pl. XI, fig. 10.

Shell moderately strong, much elongated, cylindrical, the latter four whorls of about equal diameter, those earlier gradually tapering, forming an obtuse cone with slightly convex outlines. Pinkish-brown (with more or less white maculation), the riblets white. Whorls 11½, weakly convex, those of the cone smooth, the rest sculptured with rather fine riblets narrower than the intervals, about 36 in number on each of the several later whorls. Umbilicus a short rimation, compressed.

Aperture ovate, decidedly higher than wide, the throat flesh-tinted. Peristome white, well reflexed and revolute, thickened; parietal callus light, its edge hardly thickened; parietal fold median, very long, one-fourth to one-third of a whorl in length.

Alt. 32½, diam. 10; alt. of aperture 12 mm.

Alt. 29½, diam. 10; alt. of aperture 11 mm.

Cuba.

This species has the unusually long parietal tooth of the Cayman Island Cerions. For the rest, it does not differ remarkably from such Cuban forms as *C. maritimum*. The whorls of the cone are ribless.

A form also referable to this species is much striped and maculated with fleshy-brown and white, the riblets being finer.

Cerion regina Pilsbry & Vanatta. Pl. XI, figs. 23, 24.

Shell thick, subcylindrical, gradually tapering above, *the long terminal cone passing gradually into cylindrical portion;* lower 3

whorls of about equal diameter; apex obtuse; earlier whorls not striate; chalk-white and dull, the smoothness of the surface but little broken by slight growth-lines, *the basal whorl irregularly and rather distantly costate,* at least on its latter half. Whorls 10 to 10½, *flat, with superficial, seam-like sutures.* Last whorl suddenly ascending in front, much compressed and *pinched toward the base.* Umbilicus open or perforate, with the usual arcuate rimation, below which it is *broadly excavated and flattened.*

Aperture oblong-cordate, slightly less than one-third the length of shell, higher than wide, dark or light brown within, rarely purplish. Peristome expanded and reflexed, its face convex but not much thickened, whitish, parietal callus moderate, its outer edge not raised. Axial lamina situated high, narrow and inconspicuous from in front. Parietal tooth low, small, varying from moderately short to long, central in position.

Alt. 31½, diam. 11¾ mill.

Alt. 33, diam. 12½ mill. (average typical specimen).

Alt. 38, diam. 13 mill.

Turk's Island, Bahamas. (Gabb, Swift).

Cerion sarcostomum Pilsbry & Vanatta. Pl. XI, fig. 16.

Shell solid and strong, subcylindrical, but slightly wider below; whitish. Whorls 11 to 11½, slightly convex, the earlier 6 forming a convexly tapering cone with *extremely obtuse apex,* almost dome-shaped at top; passing gradually into the cylindrical portion of shell, which consists of 5 to 6 whorls. Sculpture, somewhat irregular and unequal, straight ribs, about as wide as the intervals, about 25–30 on last whorl. These ribs are strongly developed on the cylindrical portion of the shell, but the cone is very densely, finely and sharply striated, the earliest whorl only being smooth.

Aperture *small,* less than one-third the total length of shell, pinkish-flesh colored in the throat; peristome well reflexed, recurved, more or less thickened on the inner edge of the face; *parietal callus thick and heavy, its edge elevated.* Parietal tooth rather strong and moderately long; axial fold moderately conspicuous.

Alt. 34, diam. 11½; alt. of aperture 10 mm.

Little Inagua, Bahamas.

Some specimens are larger than the above dimensions; one worn and broken "crab-shell" before us would probably be not less than 40 mm. alt. if perfect. It is not unlikely that forms occur with the ribs obsolete, as in the allied *C. columna.*

C. sarcostomum clearly belongs to the immediate group of *C. cretaceum* and *C. columna*. The latter has a very dark aperture, broadly flanged lip and less obtuse apex. *C. cretaceum* lacks sculpture except on the basal whorl, is absolutely cylindrical, with light mouth and excessively short terminal cone, while the present species is more tapering, with the cone decidedly longer, gradually passing into the cylindrical portion.

This species is, we believe, the first one to be reported from Little Inagua. It is extremely likely that *C. cretaceum*, described without locality, will prove to inhabit some part of the Inagua group, when it is re-discovered.

Cerion Abacoense Pilsbry & Vanatta. Pl. XI, fig. 11.

Shell cylindrical, solid and strong, entirely white. Latter three whorls of about equal diameter, preceding one slightly smaller, those earlier rapidly tapering to form a short cone; apex obtuse. Sculptured with rather close, strong and nearly straight riblets, as wide as, or narrower than the interstices, numerous (31–38 on last whorl), part of the riblets generally splitting on the base; 1½ to 1¾ nepionic whorls free from riblets, and those of the following several whorls very fine, though distinct. Whorls 9¾ to 11½, slightly convex, the last ascending as usual. Sutures well-marked. Umbilicus a nearly straight rimation terminating in an almost closed axial chink; umbilical area (back of columellar lip) small, with a bounding furrow below.

Aperture vertical, brought forward almost to anterior level of the cylinder; rounded, nearly as wide as high, obliquely truncate above. Peristome well reflexed, recurved, its face thickened and convex; parietal callus heavy, but thinned at outer edge. Axial fold moderate, parietal fold deep-seated, low, and rather long.

Alt. 34, diam. 13; alt. of aperture 12 mm. (largest specimen).

Alt. 27½, diam. 13; alt. of aperture 11¾ mm. (shortest specimen).

Abaco, Bahamas.

This beautiful species differs from *C. album* Maynard and *C. Maynardi* Pils. & Van. in the characters of the umbilical region and lip, as stated in our former paper on Cerion.[7]

Cerion Abacoense Bendalli Pilsbry & Vanatta. Pl. XI, fig. 13.

A miniature *Abacoense* (*q. v.*) in shape and sculpture. Whorls 10 to 10½. White, closely *mottled with brown*, the nepionic whorls

[7] Proc. Acad. Nat. Sci., Phila., 1895, p. 209.

corneous-brown. *Aperture dark brown within;* peristome white, less heavy; *parietal callus thin, translucent; parietal tooth very small,* short.

Alt. 19½, diam. 8⅓; alt. of aperture 7 mm.

Alt. 21½, diam. 8⅔; alt. of aperture 7 mm.

Abaco, Bahamas.

This form at first sight looks extremely different from *C. Abacoense,* and as we have seen no intermediate examples it may well prove to be a distinct species. However, we consider it best to rank *Bendalli* as a subspecies, thereby keeping in sight its genetic relationship with the larger form; this might otherwise be easily overlooked, on account of its maculated coloring, which would at first incline one to look to another group of forms for its allies.

It is named in recognition of the services to science of Mr. Wilfred Bendall, who has recently published a list of the land snails of the Bahamas.

Cerion Eleutheræ Pilsbry & Vanatta. Pl. XI, figs. 19, 20.

Shell solid and strong; smoothish above, ribbed below; color lusterless; white, with a bluish-purple tint, most obvious around the base, cylindric-tapering, terminating above in a rather long slightly convex-sided cone which passes gradually into the cylindrical portion. Apex obtuse; whorls 10½ to 12½; nepionic 2½ whorls nearly smooth, slightly convex; following *whorls of the cone smoothish* to the naked eye, showing rather irregularly spaced wrinkles under the lens, *flat,* with seam-like *sutures, not in the least impressed.* Latter 4 whorls approaching equality in diameter, subregularly and rather strongly costate (at least the lower two whorls), the last one with about 27 (22 to 30) ribs, which do not split or double on the base, although sometimes there are some riblets intercalated there.

Aperture about one-third the shell's length, oblong or rounded, obliquely truncate above, liver-brown within. Peristome white, reflexed, the outer edge sharp and somewhat recurved, *inner edge built far forward, especially below,* bevelled outwardly; parietal callus either very thin or thick. Axial fold variable in prominence; parietal tooth very strong, long. Axis perforate, with a rather short rimation.

Alt. 29, diam. 11½; alt. of aperture 11 mm.

Alt. 33, diam. 11; alt. of aperture 11 mm.

Alt. 23½, diam. 11; alt. of aperture 9 mm.

Eleuthera, Bahamas.

This species is closely allied to *C. Agassizi* Dall and *C. gubernatorium* Crosse, of the island of New Providence. It has more remote affinity with *C. sarcostomum* P. & V. of Little Inagua.

From *C. Agassizi* it differs in never having the parietal callus raised in a strong ridge making the peristome continuous; the ribs are less sharp and narrow, etc. *C. gubernatorium* has a proportionally very large mouth, less thickened lip, finer riblets or none, and a glossy surface; moreover, while nearly white examples occur, it is generally much variegated. There can be no doubt of the close relationship of the three species, but judging from a series of 25 examples of *C. Eleutheræ*, a good series of *C. gubernatorium* and author's examples of *C. Agassizi*, they are specifically distinct.

A pair of specimens of *C. Eleutheræ* before us (from Krebs) are considerably streaked with brown, otherwise typical. Another specimen, received from Mr. Van Nostrand, is very small, alt. 18⅔, diam. 8 mm., and somewhat maculated. The costulation extends further up, and the peristome is not thickened. This probably represents a subspecies.

Cerion Blandi Pilsbry & Vanatta. Pl. XI, fig. 7.

Shell solid and strong, cylindric-tapering, the latter 3 whorls approaching equality in diameter, those above slowly tapering to form a long cone, gradually passing into cylindrical portion. Light grayish, with inconspicuous white flecking. Whorls 10, the nepionic 2¼ corneous, smooth, the following 2½ weakly, distinctly ribbed, later 4½ to 5 whorls *very sharply and roughly, strongly ribbed*, ribs narrow and high, 19 to 22 on each of the two or three later whorls. Umbilicus compressed, rimate, the area behind columellar lip excavated, smooth.

Aperture ovate, white within; peristome reflexed and recurved, not thickened; parietal callus heavy, forming a strong bar across the space between lip ends. Parietal tooth median, moderately strong.

Alt. 27½, diam. 11; alt. of aperture 10½ mm.

Alt. 26¾, diam. 11; alt. of aperture 10 mm.

Turk's Island, Bahamas.

This species resembles *C. glans* in general figure and the stout parietal callus; but the ribs are conspicuously different, peculiarly rough and unfinished in appearance, somewhat like *C. felis*.

Cerion tenuilabre pygmæum Pilsbry & Vanatta. Pl. XI, fig. 9.

Shell small and rather thin, varying from cylindric to short oval. Whorls 7 to 8½, the latter 2 to 3 of subequal diameter, those above

forming a stumpy (often *very* short) cone. Rusty brown. Surface regularly costellate; apical whorl smooth, next whorl finely and regularly striated. Last whorl ascending as usual in front, having a very short umbilical rimation below.

Aperture brownish within, rounded, obliquely truncate above. Peristome white, blunt, slightly expanded; parietal callus thin. Axial fold inconspicuous; parietal tooth deep within and extremely small.

Alt. 10, diam. 6⅓; alt. of aperture 4 mm.

Alt. 12, diam. 7; alt. of aperture 5 mm.

Alt. 15⅔, diam. 7½; alt. of aperture 6 mm.

Alt. 14⅔, diam. 6⅓; alt. of aperture 5 mm.

Gibara, Cuba.

The short, typical form of this variety is extremely peculiar in shape, being shorter than any other *Cerion*. Longer examples are more like *C. tenuilabre*, of which we consider it a small variety. Many specimens are before us.

Cerion multistriatum Pilsbry & Vanatta. Pl. XI, fig. 8.

Shell small and rather thin, short cylindrical; white, longitudinally marbled with gray or chestnut-brown. Whorls 8 to 8½, the latter 2 or 3 about equal in diameter, the rest rapidly tapering, apex obtuse. Sculptured with excessively fine, close, sharp thread-like striæ, apical 2 whorls smooth. Aperture rounded obliquely, truncate; peristome narrowly reflexed; parietal callus very thin; axial fold median, moderate; parietal tooth extremely small.

Alt. 17, diam. 7; alt. of aperture 6½ mm.

Alt. 14, diam. 7; alt. of aperture 5 mm.

Crooked Island, Bahamas.

This is a small, extremely fine striated form with very small parietal tooth. It is represented in the collection of the Academy by only five specimens, given by Mr. H. D. Van Nostrand, and originally from Bland.

Cerion basistriatum Pilsbry & Vanatta. Pl. XI, fig. 28.

Shell rather thin, cylindrical, the latter three whorls of about equal diameter, those above tapering rapidly, forming a straight-sided cone about one-third the shell's length. Surface rather smooth and glossy. Two corneous nepionic whorls smooth; succeeding one or two turns densely and regularly striated; rest of the shell smooth except for slight irregular growth-wrinkles, down to the last whorl,

which is finely costulate. Color white with irregular longitudinal streaks and blotches of brown. Whorls 9, hardly convex, the last ascending slowly in front, rounded below, with a short umbilical rimation. Aperture about four-tenths the shell's length, rounded-ovate, nearly as wide as high, brownish within. Peristome thickened, outer lip expanded but scarcely reflexed, columellar lip reflexed; the terminations connected across the parietal wall by a strong, elevated callous ledge. Axial lamina small as seen from the mouth; parietal lamina small, often double, moderately long; a small denticle to the left of, and an elongated lamina behind and to the right of its inner end.

Alt. 18, diam. 9; apert., alt. 7, width 6½ mm.

Alt. 16½, diam. 8; apert., alt. 6, width 5½ mm.

Cabo Cruz, Cuba.

This species differs from *C. tridentatum* in its round aperture with strong parietal callus, and the costulate basal volution; from *C. striatellum* it differs in the much smoother surface, thinner substance, etc. The arrangement of parietal plicæ is of the same type as found in the two species mentioned.

Cerion tridentatum Pilsbry & Vanatta. Pl. XI, fig. 27.

Shell moderately thick, strong, cylindrical, the latter three whorls of about equal diameter, those preceding tapering to form a long cone about one-third the total length of shell. Chalky-white, mottled with corneous, especially on the cone, rather polished, the surface smooth except for slight growth-wrinkles, but a few whorls following the two smooth, corneous nepionic ones are seen under a strong lens to be densely striated, and the base of the last whorl has irregular striæ. Whorls 10, with just perceptible convexity, sutures well marked below. Last whorl ascending as usual.

Aperture *ovate*, about four-tenths the total length, much higher than wide, light brown in the throat; peristome rather thin, narrowly reflexed, white; columellar margin well reflexed; parietal callus thin, its edge indistinct, axial lamina small or inconspicuous from front aspect. Parietal lamina small, short, central, with a still smaller accessory denticle to the left of and beyond its inner termination, and another slightly to the right and deeper within; all visible without cutting the shell. Umbilical rimation short and curved.

Alt. 27½, diam. 10; apert., alt. 11, width 8¾ mm.

Alt. 25, diam. 9; apert., alt. 10, width 7½ mm.

Cuba (Robert Swift colln., A. N. S. P.).

This species superficially resembles closely the *C. incanum* of Key West, but differs in the ovate form of the aperture, sculpture of the earlier whorls, and the teeth of the aperture.

Cerion duplodon Pilsbry & Vanatta. Pl. XI, fig, 26.

Shell rather thin, cylindrical, the latter three whorls of about equal diameter, those above slowly tapering to form a rather long, convex cone. White, variegated with gray-white. Whorls $10\frac{1}{2}$, slightly convex, two nepionic smooth, those of the cone very finely, sharply striate, the latter four with coarser riblets, much narrower than their intervals. Umbilicus a short, compressed rimation.

Aperture ovate, large and open, white, higher than wide. Peristome expanded and recurved, rather thick; axial fold basal; parietal fold narrow, nearly a half-whorl long; an acccessory fold ascends around the root of the columella, but at the apertural termination approaches close to the main parietal lamella.

Alt. 29, diam. $10\frac{1}{2}$; alt. of aperture 11 mm.

Bahamas, exact locality unknown.

This is an albino form of the Diacerion group, differing from *C. rubicundum* and its immediate allies in the greater distance between the two parietal lamellæ within.

Plate XI.

Fig. 1. *Cerion uva desculptum* Pils. & Van.
Fig. 2, 3. *Cerion Yumaense* Pils. & Van.
Fig. 4. *Cerion mumia magister* Pils. & Van.
Fig. 5. *Cerion incrassatum microdon* Pils. & Van.
Fig. 6. *Cerion crassilabre Sallei* Pils. & Van.
Fig. 7. *Cerion Blandi* Pils. & Van.
Fig. 8. *Cerion multistriatum* Pils. & Van.
Fig. 9. *Cerion tenuilabre pygmæum* Pils. & Van.
Fig. 10. *Cerion hyperlissum* Pils. & Van.
Fig. 11. *Cerion Abacoense* Pils. & Van.
Fig. 12. *Cerion iostomum Arangoi* Pils. & Van.
Fig. 13. *Cerion Abacoense Bendalli* Pils. & Van.
Fig. 14. *Cerion iostomum* Pfr.
Fig. 15. *Cerion incanoides* Pils. & Van.
Fig. 16. *Cerion sarcostomum* Pils. & Van.
Fig. 17. *Cerion columna* Pils. & Van.
Fig. 18. *Cerion columna validum* Pils. & Van.
Fig. 19, 20. *Cerion Eleutheræ* Pils. & Van.

Fig. 21. *Cerion regina eucosmium* Pils. & Van.
Fig. 22. *Cerion regina percostatum* Pils. & Van.
Fig. 23, 24. *Cerion regina* Pils. & Van.
Fig. 25. *Cerion regina brevispirum* Pils. & Van.
Fig. 26. *Cerion duplodon* Pils. & Van.
Fig. 27. *Cerion tridentatum* Pils. & Van.
Fig. 28. *Cerion basistriatum* Pils. & Van.
Fig. 29. *Cerion felis* Pils. & Van.
Fig. 30. *Cerion Johnsoni* Pils. & Van.
Fig. 31. *Cerion Maynardi* Pils. & Van.